

I claim:

1. Image processing apparatus comprising an input device; an output device; and a processor coupled to the input and output devices, the processor being adapted to compare the tone range of an image input via the input device and the tone range provided by the output device, and
  - i. if the input tone range falls wholly within the output tone range, to cause the output device to render an absolute reproduction of the image, or
  - 10 ii. if the input tone range overlaps the output tone range, to cause the output device to render a reproduction of the image in which that part of the input tone range falling outside the output tone range has substantially been mapped into the output tone range.
- 15 2. Apparatus according to claim 1, wherein step (ii) further comprises determining if the input colour gamut of the input device and image falls outside the output colour gamut of the output device and output medium by more than a predetermined amount and, if it does, mapping the input colour gamut to the output colour gamut using a perceptual mapping algorithm.
- 20 3. Apparatus according to claim 2, wherein the predetermined amount is about 12%.
- 25 4. Apparatus according to claim 1, wherein the processor operates on the tone ranges in profile connection space.
5. Apparatus according to claim 1, wherein in step (ii), if only one extreme of the input tone range falls outside 30 the output tone range, the method comprises maintaining the other extreme substantially constant and mapping the remainder of the input tone range proportionally, providing a pleasing appearance.